

# Electronic Portfolios: Digital Stories of Lifelong and Lifewide Learning

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## Themes

- **Context**  
– 21st Century Learning
- **Product**  
– Digital Archive for Life
- **Process**  
– Portfolios and Reflection  
– Digital Storytelling
- **Examples**

# Context

Why  
Electronic Portfolios  
Now?


<http://www.21stcenturyskills.org/>



The  
Partnership  
for 21st  
Century  
Skills

## 21st Century Assessment

THE BRIDGE to 21ST CENTURY LEARNING

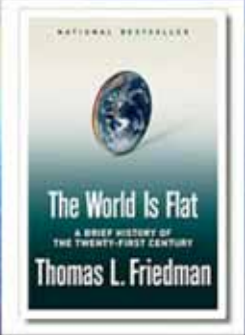


## 21st Century Learning Skills

- Information and Media Literacy Skills
- Communication Skills
- Critical Thinking and Systems Thinking
- Problem Identification, Formulation and Solution
- Creativity and Intellectual Curiosity
- Interpersonal and Collaborative Skills
- Self-Direction
- Accountability and Adaptability
- Social Responsibility

Partnership for 21st Century Skills  
<http://www.21stcenturyskills.org/>

## The World in Flat




- Thomas Friedman, New York Times Columnist
- A look at the change and **globalization** since Y2K

## 10 "Flatteners"

10 Major political events, innovations, companies

1. 11/9/89	1. Walls down + Windows up
2. 8/9/95	2. Netscape went public
3. Work Flow Software	3. Applications talk to each other
4. Open-Sourcing	4. Self-Organizing Collaborative Communities
5. Outsourcing	5. Y2K panic + help desks (India)
6. Offshoring	6. Shifting production (Asia)
7. Supply-Chaining	7. Wal-Mart (China)
8. Insourcing	8. UPS
9. In-forming	9. Google, Yahoo, WebSearch
10. The Steroids	10. Digital, Mobile, Personal, Virtual

## A Whole New Mind



- Daniel Pink
- Balancing Right-Brain skills for the "Conceptual Age" with Left-Brain skills from the "Information Age"

## Causes of shift from LEFT to RIGHT Brain

- Abundance
- Asia
- Automation

## 6 Essential High-Concept, High Touch Aptitudes

Dan Pink, *A Whole New Mind*

1. **Design** (not just function) - create objects beautiful, whimsical, emotionally engaging
2. **Story** (not just argument) - the ability to fashion a compelling narrative
3. **Symphony** (not just focus) - synthesis—seeing the big picture
4. **Empathy** (not just logic) - forge relationships - care for others
5. **Play** (not just seriousness) - laughter, lightheartedness, games, humor
6. **Meaning** (not just accumulation) - purpose, transcendence, and spiritual fulfillment.

## Context for ePortfolios

- Purpose(s)
- Audience(s)
- Ownership
- Tools
- Literacy Level

# Product

## Electronic

Portfolios  
(Technology Matures)

If we build it, will they use it?  
 And **HOW** will they use it?  
 What about the users?  
 Why would learners want to use an ePortfolio?

- ### ePortfolio Technology over Time
- | Storage  | Software  |
|--|---|
| <ul style="list-style-type: none"> <li>• 1991: Desktop</li> <li>• 1995: CD-R</li> <li>• 2000: Internet</li> <li>• 2004: DVD-R</li> <li>• 2005: <b>Pocket Tech</b> (PDAs, Flash drives, Phones, iPods)</li> <li>• What's Next?</li> </ul> | <ul style="list-style-type: none"> <li>• Common tools               <ul style="list-style-type: none"> <li>– Office &amp; PDF</li> <li>– HTML Editors</li> </ul> </li> <li>• Customized Systems               <ul style="list-style-type: none"> <li>– Online data bases</li> <li>– Work Flow Management</li> <li>– Assessment Management</li> </ul> </li> <li>• Interoperability (currently in "silos")</li> </ul> |

- ### Levels of ePortfolio Implementation
- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• <b>Working Portfolio</b> <ul style="list-style-type: none"> <li>– The Repository</li> <li>– The Digital Archive</li> <li>– The Artifacts (meta-tagged)</li> <li>– Personal Information</li> <li>– Reflective Journal</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• <b>Presentation Portfolio(s)</b> <ul style="list-style-type: none"> <li>– The "Story" or Narrative</li> <li>– Multiple Views (public/private)</li> <li>– Varied Audiences (permissions)</li> <li>– Varied Purposes</li> </ul> </li> </ul> |
|--|--|

### A question to ponder

- What could happen if every citizen was issued personal web server space that they would own for a lifetime?

- ### Educause Quarterly 2004
- "Beyond the Electronic Portfolio: A Lifetime Personal Web Space" [LPWS]
    - Ellen R. Cohn and Bernard J. Hibbitts (University of Pittsburg)
  - "Rather than limit people to the e-portfolio model, why not develop a model providing a personal Web space for everyone, for their lifetimes and beyond?"

## MEMEX

- "A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is an enlarged intimate supplement to his memory."  
– Vannevar Bush (1945) "As We May Think"

## LPWS

- organized more like our brains than our file cabinets
- available anywhere, any time
- universally accessible to everyone, any ability, even the homeless
- can survive as an historical record of a person's body of work

Cohn & Hibbitts (2004)

## Benefits of LPWS

- Educational Continuity: Less Knowledge Left Behind
- A Convenient One-Stop Shop
  - Structured according to the user's unique concept map and learning style, not by predetermined institutional or commercial templates
  - Crosses institution & sector boundaries
- Community-Building
  - link individuals to larger communities (e.g. ELGG, Facebook)

Cohn & Hibbitts (2004)

## Future Challenges

- require integration between multiple systems (educational, social, business, and government)
- must be accessible to all citizens, regardless of age, disability, or socioeconomic status
- where to house these personal Web spaces
- protect individual privacy, security, and rights
- changes in technology - integrate current and future technologies
- new standards for interoperability
- financial issues - economic models

Cohn & Hibbitts (2004)

## Digital Archive for Life (DAL)

- space to store the raw materials for e-portfolios
- archives of family records, genealogy and digital stories, autobiographies, child development data
- evidence of personal and professional accomplishments, and all kinds of personal information
- Personal archive/content management system

## Memories Lost

- Physical/Analog Documents
  - Hurricane Katrina
  - Floods, Earthquakes, Fire
- Virtual/Digital Documents
  - Pervasive use of digital cameras
  - Massive hard drive crash
  - a "hole in history"
- Ourmedia.org & archiving Internet

## Digital Preservation

- LPWS or DAL or "Digital Memex"
- Physical formats (CD, DVD, server space, other?)
- File formats
  - Text ( ASCII TXT, PDF) [LOC]
  - Audio & Video?
- Interoperability
  - IMS, XML, RDF, RSS, FOAF, ???

# Process

Electronic

# Portfolios

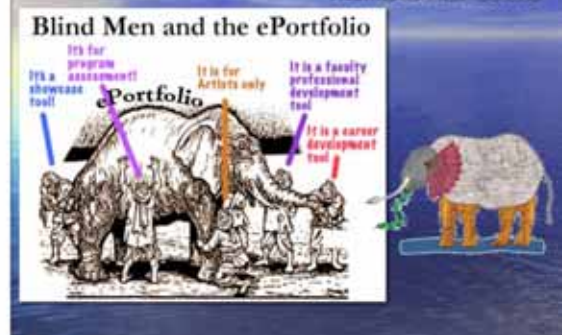
## Portfolio Processes

### Traditional + Technology

- Collecting
- Archiving
- Selecting
- Linking/Thinking
- Reflecting
- Storytelling
- Directing
- Collaborating
- Celebrating
- Publishing

## "The Blind Men and the Elephant"

Thanks to Alan Levine



## Eskimos and "Snow"

- Eskimos having 49 different words for "snow"
- Those who don't live in that environment tend to see it all as the same cold white stuff
- Same goes with "portfolio"

## Purpose & Goals for the portfolio (Determine Content)

- Multiple purposes:
  - Learning/Process
  - Assessment
  - Marketing/Showcase

## Learning Portfolios

- *"know thyself" = a lifetime of investigation*
- *self-knowledge as outcome of learning*

*The Learning Portfolio*  
(Zubizaretta, 2004, p.20)

## Purposes for Assessment

- Assessment **OF** Learning = Summative Assessment
- Assessment **FOR** Learning = Formative (Classroom-based) Assessment
- Past-to-Present
- Present-to-Future

[www.qca.org.uk](http://www.qca.org.uk)  
ages 3-14

Research-based principles of assessment for learning to guide classroom practice

## Assessment for Learning

## Crucial Distinction

- **Assessment OF Learning**  
How much have students learned as of a particular point in time?
- **Assessment FOR Learning**  
How can we use assessment to help students learn more?

Rick Stiggins  
Assessment Training Institute

## A tale of two paper portfolios

- High School graduates in Washington state (and Utah, too!)
- High school freshman in NY  
(Jim Mahoney, *Power and Portfolios* published by Heinemann)

## What's the difference between those two stories?

- What are the variables that produce these extremes in attitudes toward ownership of portfolios?

### What is your portfolio philosophy?

- A standardized **checklist** of skills? (Positivist)

or

- A reflective **story** of deep learning? (Constructivist)

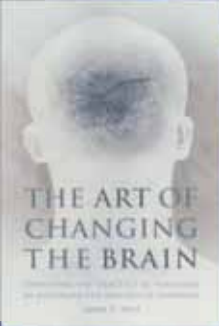
# Reflection

## The "Heart and Soul" of a Portfolio

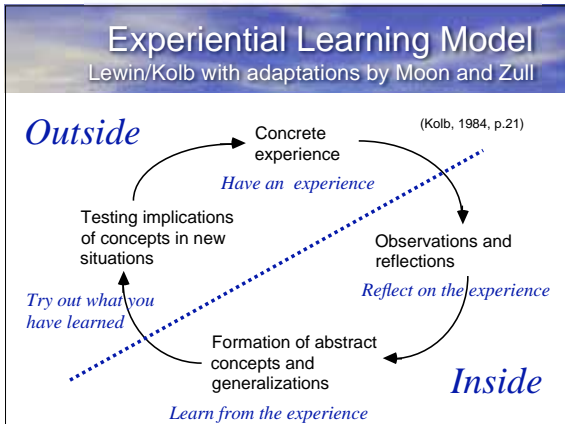
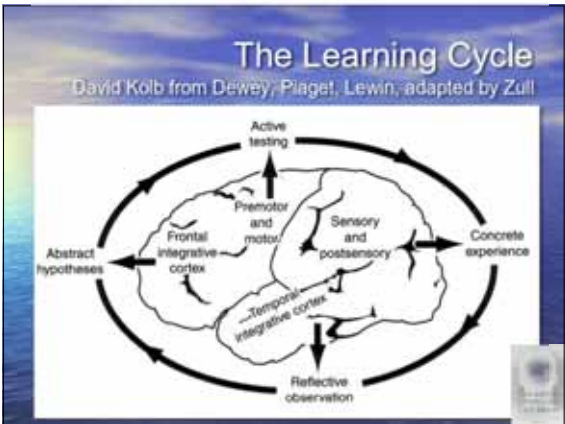
### Portfolio tells a Story

"A portfolio tells a story. It is the story of knowing. Knowing about things... Knowing oneself... Knowing an audience... Portfolios are students' own stories of what they know, why they believe they know it, and why others should be of the same opinion."  
(Paulson & Paulson, 1991, p.2)

### Resource on Biology of Learning




- Enriching the Practice of Teaching by Exploring the Biology of Learning
- James E. Zull
- Stylus Publishing Co.




## Jennifer Moon on Reflection

1999



2004



- Reflection is a form of mental processing – like a form of thinking – that we use to fulfil a purpose or to achieve some anticipated outcome. It is applied to relatively complicated or unstructured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding and possibly emotions that we already possess (based on Moon 1999)

## Moon on Reflection

- One of the defining characteristics of surface learning is that it does not involve reflection (p.123)

## Deep Learning

- involves reflection,
- is developmental,
- is integrative,
- is self-directive, and
- is lifelong

Cambridge (2004)

## Linked to...

*Strategies that promote Intrinsic Motivation to maintain the process for Lifelong Learning*

- Online Portfolios
- Digital Storytelling
- Blogs & Wikis
- Games

## How can you leverage the technologies students own?

- Accessibility from home computers
- Connectivity with cell phones & PDAs (digital images, reflections)
- Video storage (iPod) or streaming video
- Podcasting** = audio-only digital stories and blogs

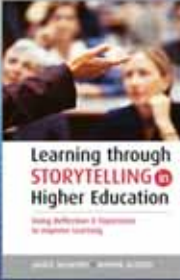
## Digital Tools for Reflection

# Digital Storytelling and Engagement

## Digital Storytelling Process

- Learners create a 2-4 minute digital video clip
  - First person narrative [begins with a written script ~ 400 words]
  - Told in their own voice [record script]
  - Illustrated (mostly) by still images
  - Music track to add emotional tone

## Storytelling as a Theory of Learning




- Two educators from New Zealand - staff developer and health educator
- Relates storytelling to literature on learning and reflection
- Provides stages of storytelling related to reflection



Digital Storytelling is BOTH...  
HIGH TECH  
and  
HIGH TOUCH

## A Graduate Student's Reflective Digital Story

- Maybe you are a graduate student reflecting on what is drawing you into teaching
- Play "Deana"



## My Website and my CD




A brief look at the tools  
More in-depth tutorials and examples  
Self-directed tutorials on e-portfolio development and digital storytelling

## The REFLECT Initiative

reflect@taskstream.com

<http://electronicportfolios.org/reflect/>

A research project to assess the impact of electronic portfolios on student learning, motivation and engagement in secondary schools

**R**esearching  
**E**lectronic  
**F**olios  
**L**earning  
**E**ngagement  
**C**ollaboration  
**T**echnology



## My Final Wish...

May all your  
**electronic portfolios**  
become dynamic  
**celebrations** and **stories**  
**of deep learning**  
across the lifespan.